

**Appl. Ser. No. 10/043,710**

**Att. Docket No. 02345/41A**

Reply to Office Action of June 16, 2003

**REMARKS**

Claims 25 to 27 have been added, and therefore claims 1 to 27 are now pending.

It is respectfully requested that the present application be reconsidered based on the following.

With respect to paragraphs two (2) to four (4) of the Office Action, Applicants thank the Examiner for withdrawing the objections to the claims, the indefiniteness rejections and the double-patenting rejections.

With respect to paragraph seven (7), claims 1 to 24 were rejected under 35 U.S.C. § 103(a) as obvious over the "Hagenauer I" reference ("Forward Error Correcting for CDMA Systems", Proceedings of ISSSTA '95 International Symposium on Spread Spectrum Techniques and Applications, Mainz, Germany, Vol. 2, September 1996, pp. 566-569 in view of the Background Information Section of the present application, and in further view of the "Hagenauer II" reference ("Iterative Decoding of Binary Block and Convolutional Codes", IEEE Transactions of Information Theory, Vol. 42, No. 2, March 1996, pp. 429-445.

While the obviousness rejections may not be agreed with, to facilitate matters, each of claims 1 and 17 as presented now provides that one of the following is satisfied: (1) a modified soft-decision Viterbi algorithm is used in which reconstruction is performed for coded bits of the outer code, and is not performed for transmitted information bits; and (2) a maximum a posteriori decoder is used, in which soft information pertaining to calculations of the outer, coded bits is used partially as a priori information for systematic bits of the inner code, so that soft values are fed back to the first decoder. These features are supported, for example, at pages 12 and 16 of the divisional patent application.

It is respectfully submitted that the references relied upon do not describe or suggest these features, as recited in the context of each of claims 1 and 17, as presented, so that claims 1 and 17 as presented are allowable.

Claims 2 to 16 depend from claim 1, and claims 18 to 24 depend from claim 17. Accordingly, claims 2 to 16 and 18 to 24 are allowable for the same reasons as their respective base claims 1 and 17.

As further regard the obviousness rejections, to reject a claim as obvious under 35 U.S.C. § 103, the prior art must disclose or suggest each claim element and it must also provide a motivation or suggestion for combining the elements in the manner contemplated

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by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)). Thus, the “problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in order to solve the problem”, Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 679 (Fed. Cir. 1998). The prior art simply does not address the “optimal decoding” problems met by the subject matter of any of the rejected claims.

The cases of In re Fine, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988), and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), also make plain that the Office Action’s assertions that it would have been obvious to modify the reference relied upon does not properly support a § 103 rejection. It is respectfully suggested that those cases make plain that the Office Action reflects a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . **One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**

In re Fine, 5 U.S.P.Q.2d at 1600 (citations omitted; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

**Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].**

In re Jones, 21 U.S.P.Q.2d at 1943 & 1944 (citations omitted; italics in original).

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That is exactly the case here since it is respectfully submitted that the Office Action reflects hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a "technologically simple concept" -- which is not even the case here, there still must be some finding as to the "specific understanding or principle within the knowledge of a skilled artisan" that would motivate a person having no knowledge of the claimed subject matter to "make the combination in the manner claimed", stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. *With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed.* In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

(See In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Federal Circuit 2000) (italics added)). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the references relied upon. As referred to above, any review of the references, whether taken alone or combined, makes plain that they simply do not describe the features discussed above of the rejected claims.

Accordingly, claims 1 to 24 are allowable for all of the above reasons.

New claims 25 to 27 do not add any new matter and are supported in the specification. New claims 25 to 27 depend from allowable claims 1 or 17, and are therefore allowable for the same reasons as claims 1 or 17.

It is therefore respectfully submitted that claims 1 to 27 are allowable.

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**CONCLUSION**

In view of the foregoing, it is believed that the rejections have been obviated, and that claims 1 to 27 are allowable. It is therefore respectfully requested that the rejections be withdrawn, and that the present application issue as early as possible.

Respectfully submitted,  
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Dated: \_\_\_\_\_

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